Applicant: Russell A. Houser et al.

Serial No.: 10/786,486

Attorney Docket No.: 019001

Examiner: Bachman, Lindsey Michele

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Amendments to the Claims:

1-20. (cancelled)

21. (currently amended) A medical device for placing against a tissue surface within a mammalian to close an opening in the tissue, the device comprising:

at least one layer of a biocompatible material; and

at least one layer of a biocompatible superelastic/shape memory material, the biocompatible superelastic/shape memory material being in the form of a sheet having an upper side and a lower side and being covered over at least a portion of the upper side and at least a portion of the lower side by the biocompatible material without the use of an adherent material, and the biocompatible superelastic/shape memory material being configured to have a curved configuration in an unconstrained shape if the biocompatible superelastic/shape memory material is configured to be have a superelastic property or to have a curved configuration in a heated, transformed shape if the biocompatible superelastic/shape memory material is configured to have a shape memory property.

- (original) The device of claim 21, wherein the superelastic/shape memory material comprises a nickel titanium alloy.
 - 23. (original) The device of claim 22, wherein the alloy comprises Nitinol.
 - 24. (cancelled)
- 25. (original) The device of claim 21, further comprising one or more protrusions extending from the superelastic/shape memory material.
- 26. (original) The device of claim 25, further comprising a power source connected to the device and configured to provide power to the protrusions.
- 27. (currently amended) The device of claim 21, wherein the layer of superelastic/shape memory material is <u>fully at least partially</u> covered by the biocompatible material.
- 28. (original) The device of claim 21, wherein the layer of biocompatible material is at least partially covered by the superelastic/shape memory material.

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 (original) The device of claim 21, wherein the device is intended to compress a hollow body cavity.

- 30. (original) The device of claim 29, wherein the hollow body cavity is part of the heart
- 31. (original) The device of claim 21, further comprising a deployment device configured to deploy the device, the deployment device comprising a handle and a deployment section, the deployment section configured to retain the device for delivery of the device to the tissue.
- 32. (original) The device of claim 21, wherein the deployment section includes a pair of openable jaws.
- 33. (original) The device of claim 21, wherein the deployment section includes a surface configured to apply a vacuum.
- 34. (original) The device of claim 21, wherein the medical device includes one or more elutable therapeutic agents that can affect healing at the site where the medical device is deployed.
- (original) The device of claim 21, wherein the medical device is intended to compress tissue.
- 36. (currently amended) A medical device for placing against a tissue surface within a mammalian, the device comprising:

at least one layer of a biocompatible material; and

at least one layer of a biocompatible superelastic/shape memory material. the biocompatible superelastic/shape memory material being in the form of a sheet having an upper side and a lower side and being covered over at least a portion of the upper side and at least a portion of the lower side by the biocompatible material without the use of an adherent material, and the biocompatible superelastic/shape memory material being configured to have a curved configuration in an unconstrained shape if the biocompatible superelastic/shape memory material is configured to be have a superelastic property or to

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have a curved configuration in a heated, transformed shape if the biocompatible superelastic/shape memory material is configured to have a shape memory property.

37. (original) The device of claim 36, wherein the device comprises multiple arms and a base configured to form a concave shape.

- 38. (original) The device of claim 37, further comprising one or more protrusions extending from the arms.
- 39. (currently amended) A method of applying a medical device to a tissue surface within a mammalian body to partially or completely close an opening, the method comprising:

retaining the medical device to a deployment device;

advancing the deployment device to the tissue surface;

pressing the medical device against the tissue surface; and

manipulating the deployment device to separate the deployment device from the medical device and leave the medical device against the tissue surface to partially or completely close the opening,

wherein the medical device comprises at least one layer of a biocompatible material and at least one layer of a biocompatible superelastic/shape memory material, the biocompatible superelastic/shape memory material being in the form of a sheet having an upper side and a lower side and being covered over at least a portion of the upper side and at least a portion of the lower side by the biocompatible material without the use of an adherent material, and the biocompatible superelastic/shape memory material being configured to have a curved configuration in an unconstrained shape if the biocompatible superelastic/shape memory material is configured to be have a superelastic property or to have a curved configuration in a heated, transformed shape if the biocompatible superelastic/shape memory material is configured to have a shape memory property, and

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the deployment device comprises a handle section and a deployment section, the deployment section configured to retain the medical device for delivery of the medical device to the tissue surface.

- 40. (original) The method of claim 39, wherein retaining the medical device to the deployment device comprises using an adhesive to retain the medical device to the deployment device.
- 41. (original) The method of claim 39, wherein retaining the medical device to the deployment device comprises applying vacuum to the medical device.
- 42. (original) The method of claim 39, wherein manipulating the deployment device to separate the deployment device from the medical device comprises advancing a plunger within the deployment device.
- 43. (original) The method of claim 39, wherein manipulating the deployment device to separate the deployment device from the medical device comprises opening a pair of jaws in the deployment section.
- 44. (original) The method of claim 39, wherein the medical device comprises one or more arms, a base, and attachment means extending from the arms, and advancing the deployment device to the tissue surface comprises advancing the deployment device to the tissue surface of the heart.
- 45. (original) The method of claim 39, wherein the medical device includes one or more clutable therapeutic agents that can affect healing at the site where the medical device is deployed.
- 46. (original) The method of claim 39, wherein leaving the medical device against the tissue surface comprises using the medical device to compress the tissue.
- 47. (currently amended) A method of treating a condition in a mammalian body by <u>compressing reinforcing</u> tissue, the method comprising:

advancing a medical device to a tissue surface; and
pressing the medical device against the tissue surface:

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releasing the medical device from compression such that it expands compresses against the tissue; and

leaving the medical device <u>compressed</u> <u>expanded</u> against the tissue surface to <u>reinforce</u> <u>compress</u> the tissue,

wherein the medical device comprises at least one layer of a biocompatible material and at least one layer of a biocompatible superelastic/shape memory material being in the form of a sheet having an upper side and a lower side and being covered over at least a portion of the upper side and at least a portion of the lower side by the biocompatible material without the use of an adherent material, and the biocompatible superelastic/shape memory material being configured to have a curved configuration in an unconstrained shape if the biocompatible superelastic/shape memory material is configured to have a superelastic property or to have a curved configuration in a heated, transformed shape if the biocompatible superelastic/shape memory material is configured to have a shape memory property.

- 48. (original) The method of claim 47, wherein the tissue surface comprises a cardiovascular vessel.
 - 49. (cancelled)
- 50. (original) The method of claim 47, further comprising one or more attachment means extending from the medical device and configured to attach the medical device to the tissue surface.
- 51. (original) The method of claim 47, wherein the medical device further comprises at least one layer of a swellable material.
- (new) The method of claim 47, wherein the device is intended to compress a hollow body cavity.
 - 53. (new) The method of claim 52, wherein the hollow body cavity is part of the heart.